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ABSTRACT

Five modes and strategies for improving cognition in reading are discussed. As defined by the author, cognition concerns recognition of knowledge and development of intellectual skills and abilities. The five points discussed are: (1) cognitive skills can be arranged in a hierarchy; (2) to teach students at or near the apex of the hierarchy, teachers must involve the emotions and personalities of the students; (3) achieving such involvement can be done by building on natural responses and leading toward sophistication and meaning; (4) teacher-student interaction is necessary to develop and refine student responses; and (5) this interaction must be vigorous and should not be allowed to become mechanical. In summarizing his discussion, the author suggests a need for both cognitive and affective objectives on the part of teachers and for involvement of both teachers and students in reading activities. References are included. (MS)

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COGNITION IN READING:

MODES AND STRATEGIES FOR IMPROVEMENT

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Cognition, in a most general sense of the word, concerns the recognition of knowledge and the development of intellectual abilities and skills. The purpose of this paper is to pinpoint some modes and strategies for improved cognition in reading. Therefore, I should like to propose a particular way of interpreting cognition in reading, a way in which I develop a five-pronged approach to the topic.

Briefly, the five points are as follows: First, cognitive skills in reading can be arranged in a hierarchy. Second, to teach those students at or near the apex of the hierarchy, teachers must involve the emotions of the student and parts of his personality, of which he may not be fully aware. Third, teachers can do so by building upon natural responses the student makes in reading encounters, but teachers must lead the student toward sophistication and maturity in reasoning. Fourth, teacher-student interaction is needed for developing and refining of student responses to reading, and such interaction must be different from the usual cold-blooded analysis. And fifth, I stress that I am not talking about an isolated mechanical skill that can be achieved at so much per pupil. Rather, I am talkirg about a vital, vibrant, and vigorous interaction between teachers and students. Let us consider each of these ponnts in more detail.

I. Cognitive Skills can be arranged in a hierarchy. Benjamin Bloom,[1] in his Taxonomy of Educational Objectives, attempts to arrange cognitive educational behaviors from simple to complex, working on the assumption that a particular simple behavior may become integrated with other equally simple behaviors to form one that is more complex. His major classes are placed somewhat in hierarchical order, his reason being that the objectives in one class are likely to build upon the behaviors found in preceding classes. The purpose of Bloom's taxonomy is to order phenomena in a way that reveals some of their essential properties--as well as their interrelationships.

Over the years, educators like David Russell have noted that comprehension in reading takes place at different levels of congition.

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In more recent times, Harold Herber[4] has developed an instructional framework, delineating levels of comprehension that build one upon the other, and in a similar fashion to Blooms' hierarchical classes.

Herber identifies three levels of comprehension: the literal, the interpretative, and the applied. Let us look more closely at how Herber defines these levels.

Literal Level: at the literal level, the reader produces knowledge of what the author said. Students who function at this level decode words, determine what each means in the given context, and recognize that there is some relationship among the words.

Interpretative Level: at the interpretative level, the reader applies what the author said in order to derive meaning from his statement. The reader looks for relationships among statements within the material he has read. From these intrinsic relationships he derives various meanings.

Applied Level: at the applied level, the reader takes the product of the literal, what the author has said, and the interpretative, what the author meant by what he said, and applies it in some pragmatic or theoretical exercise.[5]

As a result of his instructional framework, Herber suggests that teachers analyze content, in part, through the preparation of study guides, applying three levels of comprehension to the material to be read. Students read then, to find out "what the author said," "what the author meant," and "how to use the ideas." But Herber's instructional framework, if not used judiciously, can produce knowledge "about" rather than a capacity to read books and respond to them. What one has to ask is this: Do these levels of comprehension about which Herber speaks enable the student to gain more from his reading than before? And how? Such study guides may enable the teacher to use them as informal inventory checks for range of cognition in his students. But Herber's "prescriptive" instructional framework need not be a deliberate attempt to teach cognitive processes directly. This brings us to my second point.

II. To teach those students at or near the apex of the hierarchy in the cognitive domain teachers must involve the emotions of the students and parts of his personality of which he may not be fully aware. Reading, after all, is a way of happening. In reading, as in most learning tasks, the student is indeed confronted with phenomena that he must put together. And the reader has more than

one level of phenomena to handle--the letter symbols and the concepts behind the symbols. But teachers must clarify the reading experience with a distinction. When students read, they read differently at times, for they read for many purposes. And when they read for more practical purposes, they read generally for information, ideas, or facts. But they also read beyond exposition, even when reading in the content areas; they can also read for the literary experience. Among an array of characters and situations, students discover those elements into which they can project their own emotions and personalities, finding meaning in what otherwise would be mere facts. But what the student contributes to the reading experience--his personal involvement, his creative, critical, and cognitivejuices stirring inside and often simultaneously--has often been disregarded by modern psychologists. Too frequently they have become preoccupied with study and analysis techniques and cumulative and sequential programs. We often hear the cliché, teaching reading as a process, but if we are going to make the statement a reality, it must not be construed as presentation equalling learning--the building of one brick upon another brick of factual knowledge. As Walter Loban illustrates: "To purge one's self of emotional involvement, to avoid the 'affective fallacy,' to limit one's response to analytical and intellectual interests has been the message of a great many critics and scholars in our time, but theirs has proved a blighting message. Even our most intellectual university students are rejecting it now, and it is necessary that those who teach literature to children and adolescents also reject it."[6] How, then, can we build into our instruction cognitive considerations--and around the emotions and personalities of our students? Consider my third point.

III. We can do so by building upon natural responses the student makes in reading encounters. In any reading situation, teachers cannot ignore the reader's contribution, his personal involvement, his language and literary modes he brings to bear on print. Teachers cannot forget, at any stage of the student's development, his "personal equipment" to evoke and organize, nor can they forget that some language and thought comes naturally to most children by the time they enter school. How much more sensilbe tt seems to approach reading and related activities from the way in which language and thought come naturally to students.

Bruner,[2] like Bloom and Herber, employs the systematic objectivity of the sciences in another fashion--in what he terms a "spiral" curriculum, one in which the basic principles of a discipline are taught from the earliest level, reinforced by more and more complex activities as the child progresses through his schooling.

Rosenblatt,[13] however, pinpoints Bruner's oversight: the structuring of the spiral around theoretical of intellectual conceptualization in math and science, say, may be one thing, but the structuring of such a spiral around the reading of literature is another. Literature is not that tenable, for literature does not present itself a structure of generally agreed upon concepts. As an alternative, Rosenblatt implies the absence of formal analysis in the teaching of reading and suggests: "...conscious attention to response or verbal signs and their organization into a mode of immediately apprehended experiences."[14] We must, then, build upon the student's own responses to reading even though such responses may be lacking in sophistication.

Unsophisticated responses are the stuff from which, after refinement and development, more mature responses to reading are made. One aim of teachers, then, should be to refine and develop responses students are already making in reading activities. But progress in reading often lies in perceiving complex patterns of events and the form of the varying relationships, in spotting clues separated and diverse in nature, and in finding satisfaction in patterns of events that may be unrelated to the student's expectations and background. We must, then, lead our students toward sophistication and maturity in reasoning, no easy task. There are, indeed, a number of pitfalls to avoid.

In his classic study Practical Criticism, I. A. Richards[11] lists a number of interferences that can occur in the reading process, among them unsupported personal contributions in reading, what he calls "mnemonic irrelevancies"--a kind of misreading. The reading experience the student brings to the book is irrelevant because he has become too preoccupied with his own emotions, his own interests, his own self--unfair reading aggression. As Richards remeinds us: "...preoccupations with self-regarding interest to the reciprocal claims to human intercourse lead to a form of organization which deprives the person so organized of whole ranges of important values."[12]

Admittedly, there are many mature students with attitudes and ideas already crystallized, already settled in thought structures. But mature readers, more likely than not, build and modify their reading and thinking over the school years, keeping an open mind, to a certain extent, for a more appropriate response. And hopefully they will continue to read with roots of reason. The mature reader is not the teacher's worry, not at this particular moment.

But what about the student who is not aware, or who cannot control his "stock response?" What about the dogmatic, rigid, student, with set attitudes, one-dimensional insights, conventional thought and platitudinous ideas? What about the student prepossessed with sterotyped images of people and life situations, reinforced through mass media and by the people around him? How do his preconceptions and prejudices restrict his reading experience, his responses? How can this student free his judgment from ready-made responses? How can he learn to respond to special and specific characteristics and qualities in print? Indeed, the concern of these questions go beyond general "reading" boundaries--to knowledge of human psychology and sociology.

Teachers, therefore, must not only permit students to make free responses to reading; they must also help students <u>weigh</u> their responses. We are living in an age of technology and transition, an age in which more than ever before we are hearing that more than ever before, students must be prepared to understand concepts and to know how to acquire information on their own. And whether or not students read for facts, to "transcend the here and now," or both, teachers must help students understand intrinsic relationships in thought, speech, and print. If we are to accomplish improved cognition in our classroom, students must be given opportunities to focus relationships in line with concepts, with previous knowledge and experience developed at different stages of growth. And teachers concerned with improved cognition in reading instruction must work in a way similar to that of the scientist, searching for "hidden likenesses" to fuse together--similarities that exist between the cognitive and affective domains.

Frank Whitehead, for example, sees in response to literature and the affective domain a similar concern to that Bloom outlines in the cognitive domain. I quote Whitehead: "What I have in mind is a gradual development of a stable core of more sustained discriminations around which new judgments come to be organized, together with a readiness to examine in a more distant and thoughtful way the grounds on which it may be possible to justify such judgments to others."[15] And Bloom's <u>analysis</u>, <u>synthesis</u>, and <u>evaluation</u> classes of cognition in learning suggest response to learning, interaction between teacher and student and student with students.

IV. <u>Much teacher-student interaction is needed for developing and refining student responses to reading, but it must be different from the usual cold-blooded analysis. The teacher must come to</u> know the student. In his books,[8&9] James Moffett advocates a

dialogical approach to learning, one which mind meets mind in grappling with ideas, often resulting in a reorganization of personal concepts and attitudes quite different from those a student might achieve on his own. When dialogue is both emotionally and intellectually centered, students emerge from discussions capable of making a number of personal syntheses of what actually occurred. And viewpoints often will differ, particularly among students from different cultures and backgrounds--a healthy situation.

Unfortunately, however, many teachers lack competence in guiding students in momentary and central learning experiences. Far too many teachers evade, restrict and control genuine responses to reading experiences, and chiefly by retreating to teacher-centered activities, to "piece-meal" explorations all neatly listed: the labelling of levels of comprehension, the identifying of characters and setting, the diagramming of tension and conflict, the separating of content from form, the paraphrasing of poetry, the defining of recurrent themes, the summarizing of plots, the scanning of verse patterns, the classifying of style, the dismantling of structure, the rehashing of "back-ground" material--"cool cognitive refuges from the total moving experience."[7] What seems to be needed is a measure of "teacher effectiveness" in guiding student-teacher responses during reading activities.

George Henry,[3] in his research on teaching style, claims that teacher behavior can be divided into moves, cycles, modes, and patterns, whose recurrence can be traced and counted, and conclusions about the nature of the teaching can be drawn. He cites the following areas in which teacher behavior can be accurately measured and evaluated:

1. Number of questions asked and rate of questioning. (Near-absence of questions and, on the other hand, too-rapid questioning for one-word answers both indicate weakness.)

2. Cognitive level of questions asked. (Too many questions calling merely for information or recall, too few eliciting evaluation and hypothetical analysis suggest a low order of thinking in the teachaer's classroom.)

3. Number of subtopics introduced per class period and depth of treatment given to each. (Six topics skimmed in forty minutes can add up to too much subject matter too fast.)

4. Student response. (Many more student responses than there are questions indicate high reaction to teaching. Cycles of questions, when analyzed, can suggest both teacher permissiveness and students' self-direction. Length of student responses can show how much a teacher is involving students in a topic.)

5. Teacher reaction to student responses. (For example, how often does the teacher invite other students to react to a student response? Does the teacher build future questions upon present student response?)

6. Range of activities the teacher employs in class: panel discussions, reports, individual projects, etc. (Too few activities that give students of English experience in organization of thought indicate teaching methods that operate against mental growth.)[10]

Some consideration, however, must be given to Henry's second point. Could just the opposite of his statement be true? Before some students, say, can reach a hypothetical analysis, might not a teacher need to build into his presentation a number of literal questions? Moreover, could not the Herber study guide be considered for such a teaching strategy? Well-designed questions guide students in their thinking, in their response to reading. <u>But well-designed questions must include more than a consciousness of and a consideration for levels of comprehension</u>.

Thus, we come now to our fifth and final point. <u>I am not talking about an isolated mechanical skill that can be achieved at so much per pupil</u>. <u>I am talking about a vital, vibrant and vigorous interaction between teachers and students</u>. Here are some other questions teachers often must consider in weighing student responses: How much does the student's past, present state of mind, interests, and understanding of life and social conditions help or hinder his reaching an appropriate, complete response? How far removed is the context of the student's past experiences from the historical and social context in which he now finds himself reading? How much do they conflict? What forces within each prevent full interaction? How much does personal blindness enter into his interpretation? How relevant and realistic are his responses in relation to the context of the book? Are they sound or are they unsupported? Is the reader's obsession with a momentary preoccupation serving as a screen between him and the book? Do they block and distort, preventing the student from evoking a balanced reaction? Or is he a receptive reader when he reads, capable of free responses in the

light of new ideas and feelings? Whatever the answers to the questions, the reader will not, nor does he need to, have the identical experiences of the author. Nevertheless, it becomes part of the teacher's responsibility to assist the student in weighing his responses as much as possible, leading him toward a more mature and integrated personality--progress in growth.

Cognition in reading is a vast topic and many authorities hold varied opinions on the subject. I have limited this presentation, however, to a five part search for similarities, a search that considers cognition in relation to language, literature and learning theory. And I have done so with good intentions. We are living in an age in which accountability is a powerful catalyst for reform and renewal of the school system. Many teachers are already looking to the producers of educational materials for accountability in regard to the performance of their "products." Other educators, in contrast, fear an over-abundance of lower level congitive behavioral objectives may encourage the capitalizing upon mechanical and submechanical methods--formal elements that so easily can become substitutes for more meaningful experiences. In our pluralistic society, cognitive objectives <u>alone</u> cannot be a main goal of education. Teachers no longer can continue to divorce thought from feeling, emotion from behavior. More than ever before students must be given the chance to observe, discuss and modify feelings, thought, and behavior, to make comparisons and to formulate conclusions--to see values in alternative choices. By weighing student responses in reading activities, teachers consider <u>collectively</u> the cognitive and affective domains. And by weighing their <u>own</u> responses in teaching situations, teachers can develop with students the kind of interaction that stirs within students the realization that there can be, and that there must be, far greater ways for them to serve their goals.

REFERENCES

1. Bloom, Benjamin S. Taxonomy of Educational Objectives, Handbook I: Cognitive Domain. New York: David McKay Company, Inc., 1956.

2. Bruner, Jerome S. A Process of Education. Cambridge, Massachusetts: Harvard Press, 1960.

3. Henry, George. "Style of Teaching and Teacher Evaluation," English Journal, (Oct. 1970), 921-927.

4. Herber, Harold. Teaching Reading in the Content Areas. IRA, 1970.

5. Ibid.,62-63.

6. Loban, Walter. "Literature and the Examined Life," English Journal, (Nov. 1970), 1087-1088.

7. Loban, op. cit., 1087.

8. Moffett, James. Teaching the Universe of Language. Boston: Houghton Mifflin Company, 1968.

9. _____ A Student-Centered Language Arts Curriculum, Grades K-13: A Handbook for Teachers. Boston: Houghton Mifflin Company, 1968.

10. N.C.T.E. Champaign, Illinois. (Oct. 1970), "News Release," p.2.

11. Richards, I. A. Practical Criticism. New York: Harcourt Brace and Company, 1929.

12. _____ "A Psychological Theory of Value," Principles of Literary Criticism. Boston: Harcourt, Brace, and Javanovitch and Company, 1950.

13. Rosenblatt, Louise. "A Way of Happening," Educational Record, (Summer, 1968), 339-346.

14. Ibid., 62-63.

15. Whitehead, Frank, quoted in Squire, James R. Response to Literature. Champaign, Illinois: N.C.T.E., 1968.